REMARKS

Claims 1, 8, & 15 have been amended. An informality was noted and corrected in Claim 8 that now depends on claim 3. Claims 1-17, 19-21 are currently pending in the present application. No new matter has been added. Reexamination and reconsideration of the application are respectfully requested.

REJECTION OF CLAIMS 1-5 & 15-20 UNDER 35 U.S.C. 102(b)

Claims 1-5 & 15-20 are rejected under 35 U.S.C. 102(b) for the reasons set forth on pages 2-3 of the Action. Specifically, claims 1-5 & 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Lo et al. (U.S. Pat. No. 6,046,646, hereinafter referred to as "Lo" or "the Lo reference").

The rejections under 35 U.S.C. 102(b) are respectfully traversed, at least insofar as applied to the amended claims, and reconsideration and reexamination of the application is respectfully requested for the reasons set forth herein below.

The Federal Circuit has ruled, "Under 35 U.S.C. §102, anticipation requires that each and every element of the claimed invention be disclosed in the prior art. . . . In addition, the prior art reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public." Akzo N.V. v. United States Int'l Trade Comm'n, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987). [emphasis added.]

Furthermore, the Federal Circuit has held, "Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." W.L. Gore &

Assocs. v. Garlock, Inc., 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). [emphasis added.]

Col. 3, lines 8-15, col. 6, lines 1-11, and Figure 6 of the Lo reference are cited as teaching the invention as claimed. In particular, elements 302, 304, 306, 308, 310, 312, 317, 318, 324, 326, 328, 330, 334, 336, 346, 348 of the Lo reference are cited as teaching the claimed invention. However, it is respectfully submitted that the Lo reference fails to teach or suggest each and every element of the claimed invention.

Specifically, the Lo reference fails to fairly teach or suggest inter alia the following claim limitation: "wherein the VCO input voltage modulation mechanism uses a plurality of delay cells to selectively adjust the time between a first point and a second point on a graph of the voltage at the VCO input voltage node with respect to time," as claimed in claim 1. Also, Lo reference fails to fairly teach or suggest inter alia the following claim limitation: "wherein configuring the VCO input voltage modulation mechanism includes programming at least one parameter for the modulation control circuit; and wherein the parameter includes one of a maximum frequency (F_max), a minimum frequency (F_min), a desired frequency (F_desired), a time between a first point and a second point on a graph of the voltage at the VCO input voltage node with respect to time, and a voltage between a first point and a second point on the graph of the voltage at the VCO input voltage node with respect to time," as claimed in claim 15.

Consequently, it is respectfully submitted that the Lo reference fails to fairly teach the circuit and method as claimed in claims 1 and 15, respectively.

In view of the foregoing, it is respectfully submitted that the Lo reference, whether alone or in combination with the Ma reference, fails to teach or suggest the circuit as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

Claim 10 is rejected under 35 U.S.C. 103(a) for the reasons set forth on pages 7-8 of the Action. Specifically, claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lo in view of Chang (U.S. Pat. No. 6,606,005, hereinafter referred to as "Chang" or "the Chang reference").

Chang is cited for teaching use of circuit as claimed in on a motherboard. However, it is respectfully submitted that Chang fails to remedy the shortcomings of Lo. In view of the foregoing, it is respectfully submitted that the Lo reference, whether alone or in combination with the Chang reference, fails to teach or suggest the invention as claimed in claim 10. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

It is respectfully submitted that the Lo and Ma references are improperly combined. It appears that the Action uses improper hindsight to selectively pick teachings from Lo, and teachings from Ma to arrive at the claimed invention. For example, the implementation of modulation charge pump 332, as two current sources 334, 336, is clearly shown in FIGS. 4 and 6 of Lo. Consequently, it would not be obvious to substitute Ma's charge pump into Lo's system, especially when Ma's charge pump is used for a very different purpose (e.g., to provide a control signal VCONT for delay pulse generator 50).

It is noted that the dependent claims incorporate all the limitations of independent claims 1 and 15, respectively. Furthermore, the dependent claims also add additional limitations, thereby making the dependent claims a fortiori and independently patentable over the cited references.

In view of the foregoing, it is respectfully submitted that the Lo reference fails to teach or suggest the circuit and method as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. section 102(b) be withdrawn.

REJECTION OF CLAIMS 6-9 & 10-14 UNDER 35 U.S.C. 103(a)

Claims 6-9 & 10-14 are rejected under 35 U.S.C. 103 for the reasons set forth on pages 4-7 of the Action. Specifically, claims 6-9 & 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo in view of Ma (U.S. 2002/0075050 A1), hereinafter referred to as "Ma" or "the Ma reference").

Specifically, paragraphs 54 and 55 and Figs. 2, 3, and 8 of Ma are cited as disclosing the invention as claimed in claims 6-9. The rejections under 35 U.S.C. 103 are respectfully traversed, and reconsideration and reexamination of the application is respectfully requested for the reasons set forth hereinbelow. In particular, the combination of Lo and Ma is contested as improper for the reasons advanced below. Moreover, even if this combination were proper, which is not conceded, the resulting combination would still fail to teach or suggest the claimed invention.

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie*

case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary kill in the art. to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2142

As described above, Lo and Ma fail to fairly teach or suggest inter alia the following claim limitation: "wherein the VCO input voltage modulation mechanism uses a plurality of delay cells to selectively adjust the time between a first point and a second point on a graph of the voltage at the VCO input voltage node with respect to time," as claimed in claim 1. Ma's FIG. 8 shows an exemplary implementation of its charge pump branch. However, the circuits fail to adjust the time between a first point and a second point on a graph of the voltage at the VCO input voltage node as claimed. VCONT is a very different signal that is used for a very different purpose than as claimed. As a result, the Office Action fails to establish a *prima facie* case of obviousness against claims 6-9 and 11-14.

It is respectfully submitted that even if the Lo reference and Ma reference were properly combined, which is not conceded, Lo, whether alone or in combination with Ma, fails to teach or suggest the specific limitations recited by the claims.

Furthermore, regarding claims 11-12, 14 and 21, the cited portions of Ma do not fairly teach or suggest the limitations related to the modulation control circuit as claimed.

Consequently, it appears that the current patent application has been improperly used as a basis for the motivation to combine or modify the components selected from Lo or Ma to arrive at the claimed invention. Stated differently, the proposed combination of the cited references appears to be based on impermissible hindsight reconstruction.

The Federal Circuit has held, "It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated, "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." (quoting In re Fine, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988)), In re Fritch, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992). [emphasis added.]

In view of the foregoing, it is respectfully submitted that the Lo reference, whether alone or in combination with the Ma reference, fails to teach or suggest the circuit as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

Conclusion

For all the reasons advanced above, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the pending claims are requested, and allowance is earnestly solicited at an early date. The Examiner is invited to telephone the undersigned if the Examiner has any suggestions, thoughts or comments, which might expedite the prosecution of this case.

Respectfully submitted,

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I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office (fax no.: 571-273-8300) on the date below.

Eric Ho (RN 39,711) March 16, 2006 (Date)